

United States Patent Application

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: **"CAPILLARY PERFUSED BIOREACTORS WITH MULTIPLE CHAMBERS."**

The specification of which

- a. ☐ is attached hereto
b. ☒ was filed on February 24, 2005 as application serial no. _____ and was amended on _____ (if applicable) (in the case of a PCT-filed application) described and claimed in international no. _____ filed _____ and as amended on _____ (if any), which I have reviewed and for which I solicit a United States patent.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I hereby claim foreign priority benefits under Title 35, United States Code, § 119/365 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

- a. ☒ no such applications have been filed.
b. ☐ such applications have been filed as follows:

FOREIGN APPLICATION(S), IF ANY, CLAIMING PRIORITY UNDER 35 USC § 119			
COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	DATE OF ISSUE (day, month, year)
ALL FOREIGN APPLICATION(S), IF ANY, FILED BEFORE THE PRIORITY APPLICATION(S)			
COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	DATE OF ISSUE (day, month, year)

I hereby claim the benefit under Title 35, United States Code, § 120/365 of any United States and PCT international application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. APPLICATION NUMBER	DATE OF FILING (day, month, year)	STATUS (patented, pending, abandoned)
PCT/US2003//026801	27 August 2003	

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below:

U.S. PROVISIONAL APPLICATION NUMBER	DATE OF FILING (Day, Month, Year)
60/406,278	27 August 2002

I acknowledge the duty to disclose information that is material to the patentability of the application in accordance with Title 37, Code of Federal Regulations, § 1.56 (reprinted below):

§ 1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

(1) prior art cited in search reports of a foreign patent office in a counterpart application, and

(2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim;

or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

(i) Opposing an argument of unpatentability relied on by the Office, or

(ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

(1) Each inventor named in the application:

(2) Each attorney or agent who prepares or prosecutes the application; and

(3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

(e) In any continuation-in-part application, the duty under this section includes the duty to disclose to the Office all information known to the person to be material to patentability, as defined in paragraph (b) of this section, which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

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I hereby appoint the following attorney(s) and/or patent agent(s) connected herewith the following customer number to prosecute this application and to transact all business in the Patent and Trademark Office:

CUSTOMER NO.
24728

I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/organization who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Morris, Manning & Martin, LLP to the contrary.

I understand that the execution of this document, and the grant of a power of attorney, does not in itself establish an attorney-client relationship between the undersigned and the law firm Morris, Manning & Martin, LLP, or any of its attorneys. Please direct all correspondence in this case to **Tim Tingkang Xia, Esq.** of Morris, Manning & Martin, LLP at the address associated with the following customer number:

CUSTOMER NO.
24728

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2	Full Name Of Inventor	Family Name WIKSWO	First Given Name John	Second Given Name P.
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Signature of Inventor 3:				Date:

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Signature of Inventor 12:				Date:

**GENERAL POWER OF ATTORNEY
CONCERNING INTERNATIONAL PATENT APPLICATIONS
PATENT COOPERATION TREATY
APPOINTMENT OF AGENT**

The undersigned applicant(s) hereby appoints:


XIA, Tim Tingkang	Reg. No. 45,242
HARRIS, John. R.	Reg. No. 30,388
TODD, Jack D.	Reg. No. 44,375
TILLMAN, Chad. D.	Reg. No. 38,634
ANDERSON, Brian J.	Reg. No. 43,470
STANO, Dana E.	Reg. No. 50,750
MACDONALD, Brian D.	Reg. No. P-54,288

MORRIS, MANNING & MARTIN, LLP
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as agents to act on its behalf before the competent International Authorities in connection with any and all International applications filed under the Patent Cooperation treaty in the U.S. Receiving Office, and to receive payments on behalf of the undersigned.

Nashville, Tennessee, USA Feb. 13 , 2004
Place: City, State & Country Date

VANDERBILT UNIVERSITY

By: 
Name: Christopher D. McKinney
Title: Director

10/525559

PT01 Rec'd PCT/PT 24 FEB 2005

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA NameExecution Date JohnP.Wiksw08/30/2004 FranzJ.Baudenbacher08/30/2004 ChangY.Chung09/02/2004 DavidE.Cliffel08/30/2004 FrederickR.Haselton09/02/2004 WilliamH.Hofmeister08/31/2004 EugeneJ.LeBoeuf09/01/2004 CharlesP.Lin08/31/2004 LisaJ.McCawley09/02/2004 AlesProkop08/30/2004 RandallS.Reiserer09/01/2004 MarkA.Stremmler09/02/2004	
RECEIVING PARTY DATA Name:Vanderbilt University Street Address:1207 17th Avenue South Internal Address:Suite 105 City:Nashville State/Country:TENNESSEE Postal Code:37027	
PROPERTY NUMBERS Total: 1 Property TypeNumber PCT Number:US0326801	
CORRESPONDENCE DATA Fax Number:(404)365-9532 Correspondence will be sent via US Mail when the fax attempt is unsuccessful. Phone:404-233-7000 Email:sprine@mmmlaw.com Correspondent Name:Tim Tingkang Xia Address Line 1:3343 Peachtree Road, N.E. Address Line 2:1600 Atlanta Financial Center Address Line 4:Atlanta, GEORGIA 30326-1044	
NAME OF SUBMITTER:	Tim Tingkang Xia
Signature:	/Tim Tingkang Xia/
Date:	10/01/2004

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EPAS ID: PAT9912 Receipt Date: 10/01/2004 Fee Amount: \$40



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SUBMISSION TYPE:	NEW ASSIGNMENT																										
NATURE OF CONVEYANCE:	ASSIGNMENT																										
CONVEYING PARTY DATA																											
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>John P. Wikswo</td><td>08/30/2004</td></tr><tr><td>Franz J. Baudenbacher</td><td>08/30/2004</td></tr><tr><td>Chang Y. Chung</td><td>09/02/2004</td></tr><tr><td>David E. Cliffel</td><td>08/30/2004</td></tr><tr><td>Frederick R. Haselton</td><td>09/02/2004</td></tr><tr><td>William H. Hofmeister</td><td>08/31/2004</td></tr><tr><td>Eugene J. LeBoeuf</td><td>09/01/2004</td></tr><tr><td>Charles P. Lin</td><td>08/31/2004</td></tr><tr><td>Lisa J. McCawley</td><td>09/02/2004</td></tr><tr><td>Ales Prokop</td><td>08/30/2004</td></tr><tr><td>Randall S. Reiserer</td><td>09/01/2004</td></tr><tr><td>Mark A. Stremmler</td><td>09/02/2004</td></tr></tbody></table>	Name	Execution Date	John P. Wikswo	08/30/2004	Franz J. Baudenbacher	08/30/2004	Chang Y. Chung	09/02/2004	David E. Cliffel	08/30/2004	Frederick R. Haselton	09/02/2004	William H. Hofmeister	08/31/2004	Eugene J. LeBoeuf	09/01/2004	Charles P. Lin	08/31/2004	Lisa J. McCawley	09/02/2004	Ales Prokop	08/30/2004	Randall S. Reiserer	09/01/2004	Mark A. Stremmler	09/02/2004	
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RECEIVING PARTY DATA																											
<table border="1"><tr><td>Name:</td><td>Vanderbilt University</td></tr><tr><td>Street Address:</td><td>1207 17th Avenue South</td></tr><tr><td>Internal Address:</td><td>Suite 105</td></tr><tr><td>City:</td><td>Nashville</td></tr><tr><td>State/Country:</td><td>TENNESSEE</td></tr><tr><td>Postal Code:</td><td>37027</td></tr></table>	Name:	Vanderbilt University	Street Address:	1207 17th Avenue South	Internal Address:	Suite 105	City:	Nashville	State/Country:	TENNESSEE	Postal Code:	37027															
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PROPERTY NUMBERS Total: 1

Property Type	Number
PCT Number:	US0326801

CORRESPONDENCE DATA

Fax Number: (404)365-9532
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NAME OF SUBMITTER:	Tim Tingkang Xia
Signature:	/Tim Tingkang Xia/
Date:	10/01/2004

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EPAS ID: PAT9912
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Fee Amount: \$40

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Subject: Assignment confirmation receipt ID: PAT9912

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SUBMISSION TYPE:

NEW ASSIGNMENT

NATURE OF CONVEYANCE:

ASSIGNMENT

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Lisa J. McCawley	09/02/2004
Ales Prokop	08/30/2004
Randall S. Reiserer	09/01/2004
Mark A. Stremier	09/02/2004

RECEIVING PARTY DATA

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Street Address:	1207 17th Avenue South
Internal Address:	Suite 105
City:	Nashville
State/Country:	TENNESSEE
Postal Code:	37027

PROPERTY NUMBERS Total: 1

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PCT Number:	US0326801

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Fax Number: (404)365-9532

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OP \$40.00 US0326801

Email: sprine@m...law.com
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NAME OF SUBMITTER:

Tim Tingkang Xia

Total Attachments: 13

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OCTOBER 01, 2004

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ATLANTA, GA 30326-1044UNITED STATES PATENT AND TRADEMARK OFFICE
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PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 10/01/2004

REEL/FRAME: 015207/0790
NUMBER OF PAGES: 15

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

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DOC DATE: 08/30/2004

ASSIGNOR:

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DOC DATE: 08/30/2004

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CHUNG, CHANG Y.

DOC DATE: 09/02/2004

ASSIGNOR:

CLIFFEL, DAVID E.

DOC DATE: 08/30/2004

ASSIGNOR:

HASELTON, FREDERICK R.

DOC DATE: 09/02/2004

ASSIGNOR:

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DOC DATE: 08/31/2004

015207/0790 PAGE 2

10/525559

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DOC DATE: 08/31/2004

ASSIGNOR:

MCCAWLEY, LISA J.

DOC DATE: 09/02/2004

ASSIGNOR:

PROKOP, ALES

DOC DATE: 08/30/2004

ASSIGNOR:

REISERER, RANDALL S.

DOC DATE: 09/01/2004

ASSIGNOR:

STREMLER, MARK A.

DOC DATE: 09/02/2004

ASSIGNEE:

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SERIAL NUMBER:

PATENT NUMBER:

PCT NUMBER: US0326801

TITLE:

FILING DATE:

ISSUE DATE:

MARCUS KIRK, EXAMINER

ASSIGNMENT DIVISION

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WHEREAS, we,

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Nashville, TN 37214

Mark A. Stremmer
2005 Cedarmon Drive
Franklin, TN 37067

have made certain new and useful inventions and improvements for which we filed a PCT patent application in the United States Patent and Trademark Receiving Office on August 27, 2003, which is entitled **CAPILLARY PERFUSED BIOREACTORS WITH MULTIPLE CHAMBERS** and was assigned Application No. PCT/US03/26801.

AND WHEREAS, Vanderbilt University, a corporation organized and existing under and by virtue of the laws of the State of Tennessee, and having an office and place of business at 1207 17th Avenue South, Suite 105, Nashville, TN 37027, U.S.A. (hereinafter "Assignee") is desirous of acquiring the entire right, title and interest in and to said inventions, improvements and application and in and to the Letters Patent to be obtained therefor;

NOW THEREFORE, to all whom it may concern, be it known that for and in consideration of the sum of One Dollar and other good and valuable considerations, the receipt and sufficiency whereof is hereby acknowledged, we have sold, assigned, and transferred, and by these presents do sell, assign and transfer unto said Assignee, its successors or assigns, the entire right, title and interest for all countries in and to all inventions and improvements disclosed in the aforesaid application, and in and to the application, all divisions, continuations, or renewals thereof, all Letters Patent which may be granted therefrom, and all reissues or extensions of such patents, and in and to any and all applications which have been or shall be filed in any foreign countries for Letters Patent on the inventions and improvements, including an assignment of all rights under the provisions of the International Convention, and all Letters Patent of foreign countries which may be granted therefrom; and we do hereby authorize and request the Commissioner of Patents and Trademarks to issue any and all United States Letters Patent for the aforesaid inventions and improvements to the Assignee as the assignee of the entire right, title and interest in and to the same, for the use of the Assignee, its successors and assigns.

AND, for the consideration aforesaid, we do hereby agree that we and our executors and legal representatives will make, execute and deliver any and all other instruments in writing including any and all further application papers, affidavits, assignments and other documents, and will communicate to said Assignee, its successors and representatives all facts known to us relating to said improvements and the history thereof and will testify in all legal proceedings and generally do all things which may be necessary or desirable more effectually to secure to and vest in said Assignee, its successors or assigns the entire right, title and interest in and to the improvements, inventions, applications, Letters Patent, rights, titles, benefits, privileges and advantages hereby sold, assigned and conveyed, or intended so to be.

AND, furthermore we covenant and agree with said Assignee, its successors and assigns, that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by us and that full right to convey the same as herein expressed is possessed by us.

IN TESTIMONY WHEREOF, I have hereunto set my hand this 30th day of

August, 2004.

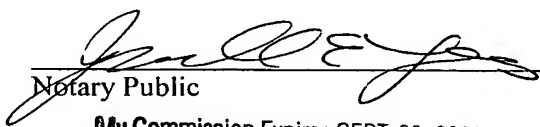

John P. Wikswa

STATE OF Tennessee)

COUNTY OF Davidson) ss.

On this 30 day of August, 2004, before me personally appeared John P. Wikswa to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]


Notary Public

My Commission Expires SEPT. 30, 2006

IN TESTIMONY WHEREOF, I have hereunto set my hand this 30th day of August, 2004.

F. Baudenbacher
Franz J. Baudenbacher

STATE OF Tennessee)
) ss.
COUNTY OF Davidson)

On this 30 day of August, 2004, before me personally appeared Franz J. Baudenbacher to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]

[Signature]
Notary Public
My Commission Expires SEPT. 30, 2006

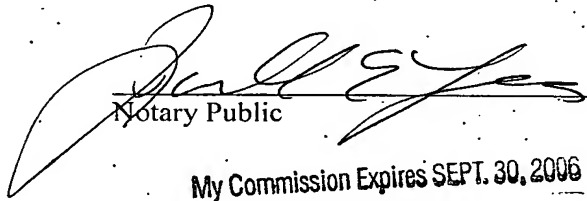
IN TESTIMONY WHEREOF, I have hereunto set my hand this 2nd day of
September, 2004.


Chang Y. Chung

STATE OF Tennessee)
) ss.
COUNTY OF Davidson)

On this, 2nd day of September, 2004, before me personally appeared Chang Y. Chung to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]


Notary Public
My Commission Expires SEPT. 30, 2006

IN TESTIMONY WHEREOF, I have hereunto set my hand this 30th day of August, 2004.

David E. Cliffl
David E. Cliffl

STATE OF Tennessee)
COUNTY OF Davidson) ss.

On this 30 day of August, 2004, before me personally appeared David E. Cliffl to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]

[Signature]
Notary Public

My Commission Expires SEPT. 30, 2006

IN TESTIMONY WHEREOF, I have hereunto set my hand this 2 day of

Sept, 2004.

Frederick R. Haselton
Frederick R. Haselton

STATE OF Tennessee)
) ss.
COUNTY OF Davidson)

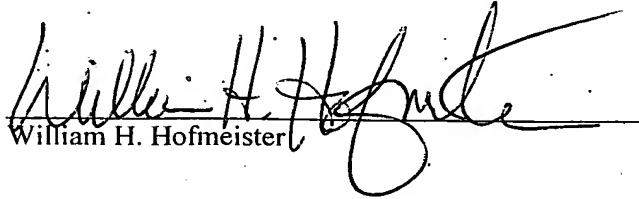
On this 2 day of September, 2004, before me personally appeared Frederick R. Haselton to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]

Paul E. Jones
Notary Public
My Commission Expires SEPT. 30, 2006

IN TESTIMONY WHEREOF, I have hereunto set my hand this 31st day of

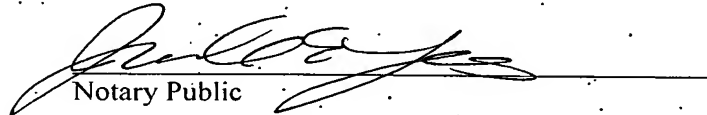
August, 2004.


William H. Hofmeister

STATE OF Tennessee)
) ss.
COUNTY OF Davidson)

On this 31 day of August, 2004, before me personally appeared William H. Hofmeister to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]


Notary Public

My Commission Expires SEPT. 30, 2006

IN TESTIMONY WHEREOF, I have hereunto set my hand this 1 day of September, 2004.

Eugene J. LeBoeuf
Eugene J. LeBoeuf

STATE OF Tennessee)
COUNTY OF Davidson) ss.

On this 7th day of September, 2004, before me personally appeared Eugene J. LeBoeuf to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]

[Signature]
Notary Public
My Commission Expires SEPT. 30, 2006

IN TESTIMONY WHEREOF, I have hereunto set my hand this 31 day of

August, 2004.



Charles P. Lin

STATE OF Tennessee)

) ss.

COUNTY OF Davidson)

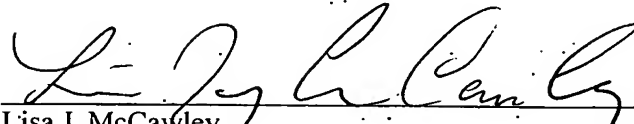
On this 31 day of August, 2004, before me personally appeared Charles P. Lin to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]


Notary Public

My Commission Expires SEP. 30, 2006


IN TESTIMONY WHEREOF, I have hereunto set my hand this 2nd day of September, 2004.


Lisa J. McCawley

STATE OF Tennessee)
) ss.
COUNTY OF Davidson)

On this 2nd day of September, 2004, before me personally appeared Lisa J. McCawley to me known and known to me to be the person described in and who executed the foregoing instrument, and she duly acknowledged to me that she executed the same for the uses and purposes therein set forth.

[SEAL]


Notary Public

My Commission Expires SEPT. 30, 2006

IN TESTIMONY WHEREOF, I have hereunto set my hand this 30 day of

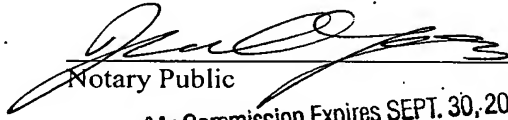
August, 2004.


Ales Prokop

STATE OF Tennessee)
COUNTY OF Davidson) ss.

On this 30 day of August, 2004, before me personally appeared Ales Prokop to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]


Notary Public
My Commission Expires SEPT. 30, 2006

IN TESTIMONY WHEREOF, I have hereunto set my hand this _____ day of
9/1, 2004.

Randall S. Reiserer
Randall S. Reiserer

STATE OF Tennessee)
COUNTY OF Davidson) ss.

On this 1st day of September, 2004, before me personally appeared Randall S. Reiserer to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]

[Signature]
Notary Public

My Commission Expires SEPT. 30, 2006

IN TESTIMONY WHEREOF, I have hereunto set my hand this 2nd day of September, 2004.


Mark A. Stremler

STATE OF Tennessee)
COUNTY OF Davidson) ss.

On this 2nd day of September, 2004, before me personally appeared Mark A. Stremler to me known and known to me to be the person described in and who executed the foregoing instrument, and he duly acknowledged to me that he executed the same for the uses and purposes therein set forth.

[SEAL]


Notary Public

My Commission Expires SEPT. 30, 2006